CLAIMS

1. An isolated and purified retrotransposon having a copy number of between 40-150 or 50-100 copies of free DNA of itself per genome.
2. A retrotransposon according to claim 1 which is linear.
3. A retrotransposon according to claim 2 which is double stranded.
4. A retrotransposon according to claim 1 which is isolated from fungi or yeast, including *Candida* or *Candida albicans*.
5. A retrotransposon comprising the genetic material encoding at least one polypeptide positioned between at least two long terminal repeats, and wherein the retrotransposon is capable of integrating into the DNA in a genome providing a copy number of between 40-150 or 50-100 copies per genome.
6. A retrotransposon according to claim 5 which is isolated from fungi or yeast, or *Candida albicans*.
7. A method of introducing DNA into the genome of a cell which method comprises introducing a transposable element comprising a nucleotide sequence encoding a desired protein located between two long terminal repeats sequences having the sequences illustrated in Figure 2B, which element is such that it can insert into the genome of said cell in the presence of an integration factor.
8. A method according to claim 7 wherein said integration factor comprises an integrase which optionally is itself included in said transposable element and which integrase is derived from the POL region of said pCAL retrotransposon.
9. A transposable element for introducing a desired DNA sequence into the genome of a cell, comprising an internal domain for receiving a nucleotide sequence encoding a desired protein flanked by two long terminal repeat regions having the sequences identified in Figure 2B.

10. A DNA transfer system comprising:

a) a transposable element for introducing a desired DNA sequence into the genome of a cell, comprising an internal domain for receiving a nucleotide sequence encoding a desired protein flanked by two long terminal repeat regions having the sequences identified in Figure 2B, said transposable element being capable of integrating into the genome of a cell in the presence of an integration factor; and

b) an integration factor

11. A transposable element according to claim 9 comprising an open reading frame encoding an integration factor which is an integrase protein and which is optionally encoded by a nucleotide sequence within the POL region of the retrotransposon of Figure 2B.

12. An isolated and purified retrotransposon comprising a nucleotide sequence selected from the group consisting of:

(a) The sequence illustrated in Figure 2B;

(b) A nucleotide sequence with at least 65% similarity with the LTR and POL region of Figure 2B;

(c) A nucleotide sequence that hybridizes under conditions of standard stringency to the nucleotide sequence shown in Figure 2B; and

(d) A functional fragment of (a), (b) or (c).

13. The integrated form of the retrotransposon claimed in claim 12 comprising the integrated form being herein designated TCa2.

14. An expression vector comprising the retrotransposon of claim 1, 5 or 12.

15. A method of gene disruption or altered expression comprising integrating a retrotransposon of any one of claims 1, 5 or 12 into a site or sites in a yeast or fungus or *Candida* wherein the retrotransposon contains elements that cause gene disruption or altered expression at the site or sites; and, optionally the gene disruption or altered expression is non-revertible.

16. A gene discovery method comprising integrating a retrotransposon of any one of claims 1, 5 or 12 into a site or sites in a yeast or fungus or *Candida* wherein the retrotransposon contains elements that cause gene disruption or altered expression at the site or sites, and, optionally the gene disruption or altered expression is non-revertible; and, mapping the gene or genes disrupted or whose expression has been altered, by the retrotransposon.

17. A retroviral-like carrier system comprising the retrotransposon of claim 1, 5 or 12.

18. A transformation and expression system for fungi or yeast or *Candida* comprising a retrotransposon of claim 1, 5 or 12.

19. A nucleic acid fragment selected from the group consisting of:

(a) a nucleic acid sequence positioned between at least two long terminal repeats of the sequence of pCal as described in GenBank accession number AF007776;

(b) a nucleic acid sequence with at least 65% similarity with the LTR and POL region of the sequence of (a);

(c) a nucleic acid sequence that hybridizes under conditions of standard stringency to the nucleotide sequence of (a); and

(d) a functional fragment of (a), (b) or (c).

20. A nucleic acid fragment according to claim 19 in which the nucleic acid sequence comprises a functional POL gene.

21. A nucleic acid fragment according to claim 19 in which the nucleic acid sequence comprises two long terminal direct repeats flanking a series of genes in the order gag (group antigen), pol (polyprotein) where the pol sequence comprises an aspartic protease, an integrase and a reverse transcriptase/RNAseH, particularly as seen in Figure 2B.

22. A functional optionally temperature sensitive inducible promoter isolated from a retrotransposon of claim 1, 5 or 12.

23. A retrotransposon selected from the group consisting of retrotransposons 1-28, whose sequences are given in accompanying figures 17-48, and 71.

24. A method of assigning a function to a nucleotide sequence which method comprise providing said sequence between the long terminal repeat sequences of the transposable element according to claim 1, 5 or 12 and introducing it into said cell and monitoring for the presence of an altered phenotype of said cell compared to a cell which has not had said nucleotide sequence introduced therein.

25. A method for gene disruption or altered expression comprising disrupting a gene by active retrotransposition into a new site or sites in the *Candida* genome of a retrotransposon, wherein the gene disruption or altered expression is optionally non-revertible.

26. A method for discovering a gene comprising disrupting a gene by active retrotransposition into new site or sites in the *Candida* genome of a retrotransposon, wherein the gene disruption is optionally non-revertible; and, mapping the gene disrupted.

27. An immunological, or immunogenic, or vaccine or therapeutic composition comprising a carrier or diluent and the expression vector of claim 14 wherein the vector expresses an antigen, or an epitope of interest or a therapeutic.

28. The composition of claim 27 comprising an immunological, immunogenic or vaccine composition, wherein the vector expresses an antigen or an epitope of interest.

29. The composition of claim 27 comprising a therapeutic composition, wherein the vector expresses a therapeutic.

30. A method for inducing an immunological response in a host including an animal or a human comprising administering to the host the composition of claim 27.

31. A method for inducing a therapeutic response in a host including an animal or human comprising administering to the host the composition of claim 28.

32. A method for detecting the presence of *Candida* comprising detecting the presence in a sample of a retrotransposon as claimed in any one of claims 1, 5 or 12.

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